

IN THE CLAIMS:

Please amend the claims as follows:

1-56. (cancelled)

57. (new) An apparatus for monitoring the performance of an exhaust-gas catalytic converter arranged in an exhaust pipe of an internal combustion engine, comprising:

an oxygen sensor disposed in the exhaust pipe, the oxygen sensor having an oxygen-sensitive region for detecting an oxygen partial pressure in the exhaust gas and a temperature-sensitive region for detecting a temperature of the exhaust gas; and

a control unit adapted to receive signals from the oxygen sensor corresponding to a detected oxygen partial pressure and a detected exhaust gas temperature,

wherein the control unit has at least two modes, including a first operating mode for operating the oxygen sensor as a temperature sensor which determines the exhaust gas temperature and a second operating mode for determining the oxygen partial pressure of the exhaust gas.

58. (new) The apparatus of claim 57, wherein the control unit determines the exhaust gas temperature in the first operating mode by at least one of determining the electrical conductivity of a solid electrolyte region of the oxygen sensor and determining the electrical conductivity of a heating structure of the oxygen sensor.

59. (new) The apparatus of claim 57, wherein the control unit determines the light-off temperature of the catalytic converter based on the exhaust gas temperature determined in the first operating mode.

60. (new) The apparatus of claim 58, wherein the control unit determines the light-off temperature of the catalytic converter based on the exhaust gas temperature determined in the first operating mode.

61. (new) The apparatus of claim 57, wherein the control unit determines the oxygen storage capacity of the catalytic converter based on the oxygen partial pressure of the exhaust gas determined in the second operating mode.

62. (new) The apparatus of claim 58, wherein the control unit determines the oxygen storage capacity of the catalytic converter based on the oxygen partial pressure of the exhaust gas determined in the second operating mode.

63. (new) The apparatus of claim 59, wherein the control unit determines the oxygen storage capacity of the catalytic converter based on the oxygen partial pressure of the exhaust gas determined in the second operating mode.

64. (new) The apparatus of claim 60, wherein the control unit determines the oxygen storage capacity of the catalytic converter based on the oxygen partial pressure of the exhaust gas determined in the second operating mode.

65. (new) The apparatus of claim 57, further comprising:
a temperature probe provided in the exhaust pipe,
wherein at least a partial region of the catalytic converter is located
between the oxygen sensor and the temperature probe.

66. (new) The apparatus of claim 58, further comprising:
a temperature probe provided in the exhaust pipe,
wherein at least a partial region of the catalytic converter is located
between the oxygen sensor and the temperature probe.

67. (new) The apparatus of claim 59, further comprising:
a temperature probe provided in the exhaust pipe,
wherein at least a partial region of the catalytic converter is located
between the oxygen sensor and the temperature probe.

68. (new) The apparatus of claim 60, further comprising:
a temperature probe provided in the exhaust pipe,
wherein at least a partial region of the catalytic converter is located
between the oxygen sensor and the temperature probe.

69. (new) The apparatus of claim 61, further comprising:
a temperature probe provided in the exhaust pipe,
wherein at least a partial region of the catalytic converter is located

between the oxygen sensor and the temperature probe.

70. (new) The apparatus of claim 62, further comprising:
a temperature probe provided in the exhaust pipe,
wherein at least a partial region of the catalytic converter is located
between the oxygen sensor and the temperature probe.

71. (new) The apparatus of claim 63, further comprising:
a temperature probe provided in the exhaust pipe,
wherein at least a partial region of the catalytic converter is located
between the oxygen sensor and the temperature probe.

72. (new) The apparatus of claim 64, further comprising:
a temperature probe provided in the exhaust pipe,
wherein at least a partial region of the catalytic converter is located
between the oxygen sensor and the temperature probe.

73. (new) The apparatus of claim 57, further comprising:
a second oxygen sensor disposed in the exhaust pipe upstream of the
catalytic converter,
wherein the first oxygen sensor is disposed in one of the catalytic
converter and the exhaust gas pipe downstream of the catalytic converter.

74. (new) The apparatus of claim 58, further comprising:

a second oxygen sensor disposed in the exhaust pipe upstream of the catalytic converter,

wherein the first oxygen sensor is disposed in one of the catalytic converter and the exhaust gas pipe downstream of the catalytic converter.

75. (new) The apparatus of claim 59, further comprising:

a second oxygen sensor disposed in the exhaust pipe upstream of the catalytic converter,

wherein the first oxygen sensor is disposed in one of the catalytic converter and the exhaust gas pipe downstream of the catalytic converter.

76. (new) The apparatus of claim 60, further comprising:

a second oxygen sensor disposed in the exhaust pipe upstream of the catalytic converter,

wherein the first oxygen sensor is disposed in one of the catalytic converter and the exhaust gas pipe downstream of the catalytic converter.

77. (new) The apparatus of claim 61, further comprising:

a second oxygen sensor disposed in the exhaust pipe upstream of the catalytic converter,

wherein the first oxygen sensor is disposed in one of the catalytic converter and the exhaust gas pipe downstream of the catalytic converter.

78. (new) The apparatus of claim 62, further comprising:

a second oxygen sensor disposed in the exhaust pipe upstream of the catalytic converter,

wherein the first oxygen sensor is disposed in one of the catalytic converter and the exhaust gas pipe downstream of the catalytic converter.

79. (new) The apparatus of claim 63, further comprising:

a second oxygen sensor disposed in the exhaust pipe upstream of the catalytic converter,

wherein the first oxygen sensor is disposed in one of the catalytic converter and the exhaust gas pipe downstream of the catalytic converter.

80. (new) The apparatus of claim 64, further comprising:

a second oxygen sensor disposed in the exhaust pipe upstream of the catalytic converter,

wherein the first oxygen sensor is disposed in one of the catalytic converter and the exhaust gas pipe downstream of the catalytic converter.

81. (new) The apparatus of claim 65, further comprising:

a second oxygen sensor disposed in the exhaust pipe upstream of the catalytic converter,

wherein the first oxygen sensor is disposed in one of the catalytic converter and the exhaust gas pipe downstream of the catalytic converter.

82. (new) The apparatus of claim 66, further comprising:

a second oxygen sensor disposed in the exhaust pipe upstream of the catalytic converter,

wherein the first oxygen sensor is disposed in one of the catalytic converter and the exhaust gas pipe downstream of the catalytic converter.

83. (new) The apparatus of claim 67, further comprising:

a second oxygen sensor disposed in the exhaust pipe upstream of the catalytic converter,

wherein the first oxygen sensor is disposed in one of the catalytic converter and the exhaust gas pipe downstream of the catalytic converter.

84. (new) The apparatus of claim 68, further comprising:

a second oxygen sensor disposed in the exhaust pipe upstream of the catalytic converter,

wherein the first oxygen sensor is disposed in one of the catalytic converter and the exhaust gas pipe downstream of the catalytic converter.

85. (new) The apparatus of claim 69, further comprising:

a second oxygen sensor disposed in the exhaust pipe upstream of the catalytic converter,

wherein the first oxygen sensor is disposed in one of the catalytic converter and the exhaust gas pipe downstream of the catalytic converter.

86. (new) The apparatus of claim 70, further comprising:

a second oxygen sensor disposed in the exhaust pipe upstream of the catalytic converter,

wherein the first oxygen sensor is disposed in one of the catalytic converter and the exhaust gas pipe downstream of the catalytic converter.

87. (new) The apparatus of claim 71, further comprising:

a second oxygen sensor disposed in the exhaust pipe upstream of the catalytic converter,

wherein the first oxygen sensor is disposed in one of the catalytic converter and the exhaust gas pipe downstream of the catalytic converter.

88. (new) The apparatus of claim 72, further comprising:

a second oxygen sensor disposed in the exhaust pipe upstream of the catalytic converter,

wherein the first oxygen sensor is disposed in one of the catalytic converter and the exhaust gas pipe downstream of the catalytic converter.